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OF
FIFTY-TWO SUCCESSFUL CASES
OF
LITHOTOMY.

BY

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Recently Professor of Operative Surgery in the University of Maryland.

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REPORT OF SECTION ON SURGERY.

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The Section on Surgery has prepared a single report, as required by our constitution; but it is proposed that, if acceptable to the Faculty, each member shall read that portion contributed by himself. It was at first supposed that the report from the Section should be a resumé of the surgical history of the past year; but the old constitution required that we should confine ourselves to a description of the surgery occurring within our own State, and by that, to a certain extent, we have been guided.

I have selected, to present to you to-day, an account of several cases of Lithotomy, one at least of which is of more than passing interest.

Up to the present time (April 9th, 1878), I have performed the operation of Lithotomy fifty-two times, and in each instance without the loss of life. Of these, 16 were below five years of age, 13 between five and ten years, 11 between ten and twenty years, 5 between twenty and forty years, and 7 between forty and seventy-five. 4 were below two years of age; the youngest being twenty-one months. The oldest patient was seventy-one years. Of the whole number, only two were negroes; these, curiously, were the youngest, of twenty-one months, and the oldest, seventy-one years.

The ordinary grooved staff and knife was employed in only six

of these cases, while in the remainder, the operation was performed with the Lithotome, devised by my father, the late Prof. N. R. Smith. To the use of this instrument I attribute the fact in a very great measure, that all of my operations have resulted so satisfactorily. My cases have not been selected, as I have operated in every instance where the opportunity offered, except one, in which the patient was brought into the hospital moribund, the man dying soon after admission. A post-mortem revealed two stones in his bladder. In all but four cases the calculus was found to be single; in three, there were two; in one case, four calculi were extracted.

I have always observed certain rules, which have possibly been of some assistance in determining the result. I never operate when the barometer is low, preferring to postpone my work from day to day until the weather is bright and clear. This rule, I believe, applies equally to all grave surgical operations which will admit of delay. I have never used, except in some of my earliest cases, the drainage-tube passed into the bladder through the wound to facilitate the flow of urine, in the first twenty-four hours after the operation, because I have found that the presence of the tube gives rise to violent irritation of the already sensitive bladder. Instead of employing it, I prefer seeing my patient several times during that period; and if I find that the urine does not pass off freely through the cut, I introduce a gum catheter through the wound, and permit it to remain only sufficiently long to empty the bladder. This is rarely necessary in young subjects, but in adults there is almost always retention during the first twenty-four hours; rarely after that period. I always make my first incision; that is, through the skin and subcutaneous cellular tissue, very free, so that there may be no pocket in which blood, urine, or pus may collect. After the operation I anoint the parts adjacent to the wound freely with carbolized oil.

I have stated that I attribute most, if not all of my success to the use of the instrument conceived by my father. I have said so, because by its aid the only two difficult features in the cutting part of the operation are made perfectly easy and mathematically certain. I refer to the first incision made through the skin and

FIG. 1

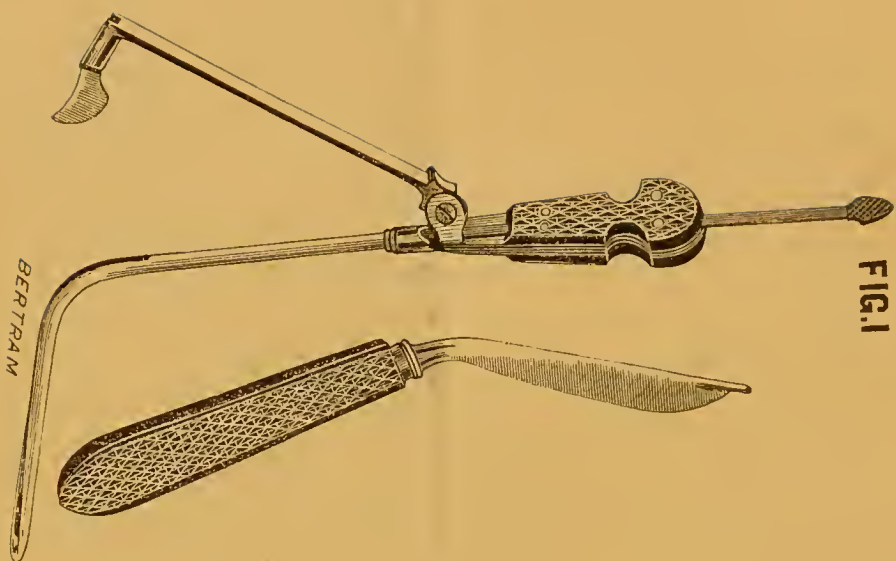
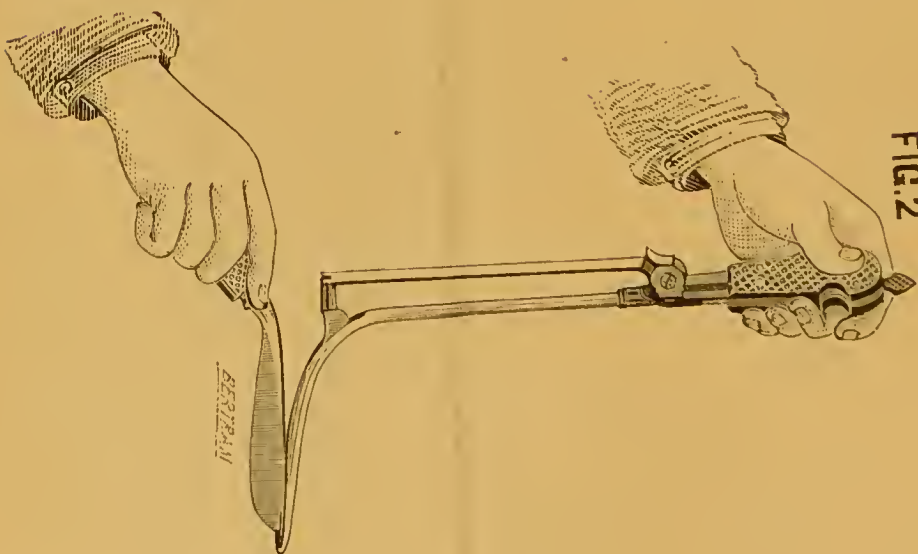


FIG. 2



cellular tissue down to the groove in the staff, and afterwards to the passage of the knife along the groove into the bladder. Dr. Smith in referring to these two steps of the operation says: "I know not how it may appear to other operators, but to me the cutting with the scalpel for the groove of the staff, the introduction of the gorget or knife into the groove of that instrument, the anxiety which is felt in regard to its being properly fixed, and the means which are necessary to determine with certainty whether it may be pushed forward with safety, constitute the most painful and perplexing part of the operation." The accompanying illustrations show more clearly how easily and satisfactorily the two difficult steps of the operation are perfectly overcome.

Fig. 1 exhibits the lithotome prepared for use, with the cutting director drawn back, and the index which works in the hollow of the grooved staff raised up. Fig. 2 represents the same instrument the moment after being used, with the cutting director, which has guided the knife into the staff, pressed down into the hollow of the staff, while the indicator above the handle has descended, demonstrating to the operator that his knife has remained in the groove. When the beaked point of the knife passes from the groove of the cutting director to the groove of the staff, it becomes engaged in the cup-shaped extremity of the indicator; and as the knife is pushed forward in the groove, the indicator above the handle must descend. If on the contrary the knife leaves the groove of the staff, the indicator ceases to move, thus warning the surgeon that his incision is not being made in the desired direction. The instrument seems to me to be as nearly perfect as possible, and the only objection that I have ever heard urged against it fell from the lips of a distinguished professor of surgery, who rather complainingly said that "with it *any one* could operate."

Some of my friends say that luck has helped me much, and the following illustrative case would seem to prove the truth of the assertion. Several years since a little boy with calculus was brought from Virginia to my father, and he not feeling well on the appointed day, requested me to do the operation for him. Chloroform had been administered, and I was about to proceed, when the father of the child interrupted me, saying that he had

brought the case to Dr. N. R. Smith, and desired that he should do the operation. I of course at once made way for him, and he, with his accustomed skill and dexterity, soon removed the calculus. The patient was placed in bed and left doing perfectly well, but in the course of two or three hours was seized with convulsions, and died before either of us could reach him.

The calculi which I have removed varied in composition; some of them were of phosphate of lime, surrounding in concentric layers an uric acid nucleus; others were of uric acid; and a few of oxalate of lime, constituting the mulberry variety. One large phosphatic calculus had for its nucleus a white hominy-bean, and no amount of cross-examination could extract from the patient, a man of about fifty years, any explanation of the curious phenomenon.



Fig. 5. $5\frac{3}{4}$ INCHES. WEIGHT 1.005 GRAINS:-

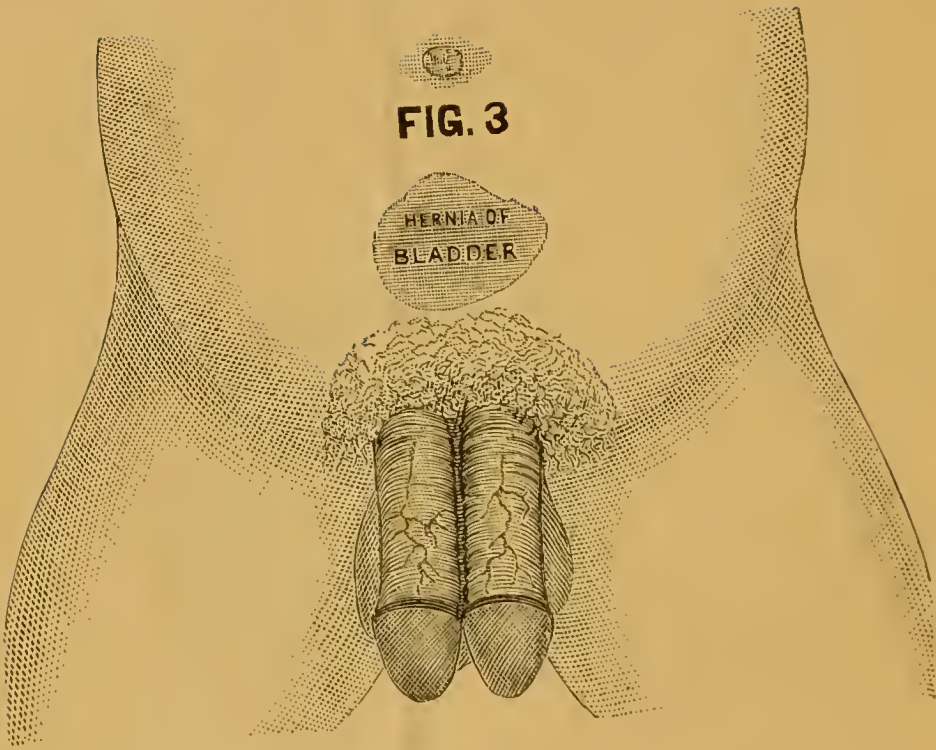
Fig. 5 represents the natural size and appearance of a large mulberry calculus removed from the bladder of a young man from Virginia, aged nineteen years. This patient had suffered from the presence of calculus since birth, and presented a most emaciated and wan appearance. He, however, made an extremely rapid recovery.

Almost the only trouble that I have experienced after the operation has been from hemorrhage, and that only in a few instances. I have always used opium freely in my after-treatment. In every instance but one, the patient was placed under



FIG. 3

HERNIA OF
BLADDER



the influence of an anaesthetic; in that case there were reasons why nothing of the kind could be used, and upon the assurance being given that it would be done quickly the patient submitted, and the operation from the first incision to the extraction of the stone was accomplished in a few seconds less than a minute. In two instances partial non-retention of urine was the result, and in one case there remained a small fistulous opening in the perineum, through which the urine occasionally dribbled. These occurred in ill-nourished and weakly children, who did not receive proper nursing or care, and who were allowed to be up and about before the wound had properly healed.

The most interesting case of the whole series, on account of the peculiar deformity which it presents, is illustrated by Figs. 3 and 4. A middle-aged gentleman from a distance, suffering from well-marked symptoms of stone in the bladder, consulted me some time ago. Upon uncovering the organ in order to introduce the sound, I was amazed to discover that the penis was double. The organs were separated from each other above by a deep sulcus, below which they were closely united. They were slightly under the average normal size, and were unprovided with any prepuce. The one upon the right of the median line was normal in every respect, being traversed by an urethra beginning at the extremity of the glans, while the one on the left had the urethral opening below and just in advance of the scrotum. From this point forward to the glans the organ was perfectly solid. On the surface of the organ, and midway between the umbilicus and the pubes, appeared an irregular smooth patch with a slightly concave surface uncovered by true skin. This was afterward found to be formed by the wall of a partially extroverted bladder. The scrotum was natural in every respect, and contained two testes of normal size. Upon making an examination, I of course passed the sound into the urethra of the right-hand penis. The instrument slipped readily into the bladder, but I could not detect by its aid the slightest symptom of calculus. Very much surprised at this, I asked the patient through which opening he passed his urine, and was informed that he used both; and, what was more curious still, that he could use either at will, or that he could first pass a

quantity of urine through one, and immediately after discharge about the same amount through the other. Then for the first time it occurred to me that there were two bladders; and calling for two utensils, I desired him to first discharge from the right-hand organ. From this there flowed a quantity of clear, amber-colored, healthy urine; while, when directly afterward the same act was performed by the one on the left in a separate vessel, the fluid was ammoniacal and turbid with mucus and pus. At once the ease was clear; he had two bladders. The one which I had not yet examined contained the stone sought for. I then attempted to pass my sound into the second urethra, but found the canal contracted and tortuous. Substituting, however, a bougie tipped with steel, I was rewarded by striking immediately a large calculus. Several days were spent in dilating and straightening this canal by means of sea-tangle tents. The removal of the stone was readily effected, the incision being made from within outward with a bistourie cachet. Violent hemorrhage ensued after the operation, and continued very profuse in spite of the most strenuous efforts to arrest it, till he became almost perfectly exsanguine. The pulse ceased to beat at the wrist after the bleeding had continued several hours, and only slight heart-sounds could be detected. However, after almost every drop of blood had escaped, the hemorrhage ceased; he commenced slowly to react, and progressed to perfect recovery. For some time after my patient's discharge I believed that there was no case on record like his, till one day I discovered its facsimile in Van Buren and Keyes' work on the Genito-Urinary Organs, page 5. There I found my case so well and accurately described, even in the minutest detail, that I came to the conclusion that Dr. Van Buren had seen him before me. I could not believe that there existed two such remarkable instances of deformity of the genital organs. Upon writing to my patient and questioning him about it, he assured me in the most positive terms that he did not know Dr. Van Buren, that he had never consulted him, and that no physician had ever examined him but myself.

FIG. 4

